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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte IGOR BEREZHNY, HENNING MAASS, REINDER
HAAKMA, and JAN TATOUSEK¹

Appeal 2016-002912
Application 13/976,048
Technology Center 3700

Before ERIC B. GRIMES, RICHARD J. SMITH, and TIMOTHY G.
MAJORS, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to an
activity visualization device. We have jurisdiction under 35 U.S.C.
§ 6(b).

We affirm.

¹ According to Appellants, the real party in interest is Koninklijke Philips
N.V. (Appeal Br. 2.)

STATEMENT OF THE CASE

Claims on Appeal

Claims 1–6 and 8–20 are on appeal. (Claims Appendix, Appeal Br. 19–26.) Claims 1 and 11 are illustrative and read as follows:

1. An activity visualization device adapted for personal use in physical contact with an individual, said device comprising:
 - an accelerometer for generating accelerometer data useful for determining physical activity of the individual;
 - a memory for logging data representative of the determined physical activity over time;
 - a processing unit for carrying out computational operations based at least in part on at least one of the generated and logged data; and
 - a visualization display for presenting, over time, the at least one of the generated and logged data, or data resulting from the computational operations of the processing unit, wherein said device includes a shape in the form of a watch, said device further comprising:

a communication means for obtaining at least one environmental datum from an external source, wherein the processing unit is also for carrying out computational operations based at least in part on the at least one environmental datum, and wherein the visualization display is further for presenting, over time, the at least one environmental datum, or data resulting from the computational operations of the processing unit, said at least one environmental datum selected from the group consisting of:

- environmental temperature,
- environmental air humidity,
- environmental atmospheric pressure,
- environmental ozone concentration,
- sky cloudiness,
- sunrise,
- sunset,
- environmental light intensity, and
- environmental light spectrum, and

wherein the visualization display is further for displaying at least one overlaid segment that represents at least one personal recommendation selected from the group consisting of:

level of physical activity,

sleeping time,
time when exposure to light should be avoided or sought, and
time when food intake should be avoided or carried out,
wherein the at least one personal recommendation is calculated with respect to at least one of physical activity and light exposure as a function of the at least one of the generated and logged data, the at least one environmental datum, or data resulting from the computational operations of the processing unit, for targeting a treatment to improve a well-being of the individual.
(*Id.* at 19–20.)

11. A non-transitory computer-readable medium embodied with a computer program having program code executable by a processor for interacting with an activity visualization device according to claim 1, the program code further being executable by the processor for at least one task selected from the group consisting of:

- communicating with the said device in such way that data can be exchanged with the latter,
- carrying out computational operations on the basis of the at least one of the generated and logged data,
- obtaining environmental data from an external source, and
- calculating recommendations for the individual carrying said device with respect to at least one of physical activity and light exposure.

(*Id.* at 22–23.)

Examiner's Rejections

1. Claims 11 and 20 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter because the claims as a whole, considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea. (Ans. 2; Final Act. 2.²)

2. Claims 1, 2, 5, 6, 8–13, and 16–20 stand rejected under pre-AIA 35 U.S.C. § 103(a) as unpatentable over LeBoeuf³ and Mault.⁴ (Ans. 2; Final

² Office Action dated Jan. 2, 2015.

³ LeBoeuf et al., US 2008/0146890 A1, pub. June 19, 2008 (“LeBoeuf”).

⁴ Mault et al., US 2002/0109600 A1, pub. Aug. 15, 2002 (“Mault”).

Act. 3–4.)

3. Claims 3, 4, 14, and 15 stand rejected under pre-AIA 35 U.S.C. § 103(a) as unpatentable over LeBoeuf, Mault, and Langereis.⁵ (Ans. 2; Final Act. 4.)

FINDINGS OF FACT

We adopt the Examiner’s findings as our own, including with regard to the scope and content of, and motivation to combine, the prior art. The following findings are included for emphasis and reference purposes.

FF 1. LeBoeuf teaches “an earpiece [that] functions as a physiological monitor, an environmental monitor, and a wireless personal communicator. . . . and is configured to transmit information wirelessly to a recording device such as, for example, a cell phone, a personal digital assistant (PDA), and/or a computer. . . . Health and environmental information . . . is transmitted wirelessly, in real-time, to [the] recording device, capable of processing and organizing the data into meaningful displays.” (LeBoeuf ¶ 6.)

FF 2. The Examiner finds that LeBoeuf teaches a device comprising an accelerometer, memory, processing unit, and a visualization display, the device obtaining environmental data such as humidity or atmospheric pressure, and the monitoring being done in real-time, and thus, over time, allowing display and monitoring of data in real-time. (Final Act. 3, citing LeBoeuf ¶¶ 6, 61, 75, 84, 93, 96, 103, 135, 159, and 162.)

FF 3. Mault teaches “[a] personal activity monitor adapted to be supported on the body of the user, preferably on the wrist, [that] includes a

⁵ Langereis et al., US 2009/0128487 A1, pub. May 21, 2009 (“Langereis”).

motion sensor such as an accelerometer to generate electrical signals as a function of body motion.” (Mault Abstract.) Mault teaches that the monitor is in the form of a wrist-watch that incorporates the display within a single device housing, as illustrated in FIG - 3A below:

FIG - 3A

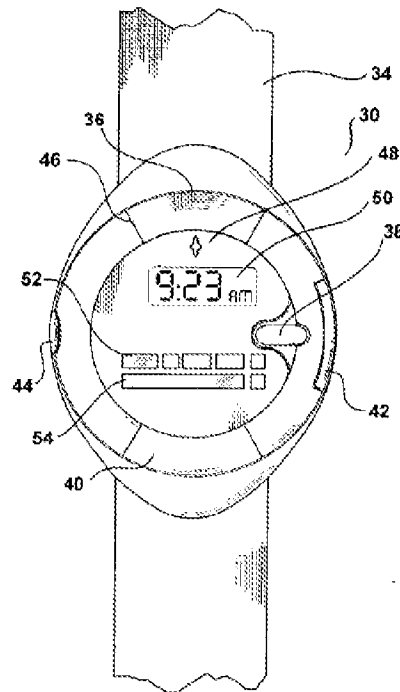


FIG – 3A above is an illustration of a wrist-watch style monitor of Mault.

FF 4. The Examiner finds that “Mault teaches the use of the display to provide overlaid feedback of various parameters such as activity levels in relation to a daily goal [] as well as suggesting various activities [] if the parameters tracked fall below a desired level.” (Final Act. 3, citing Mault ¶¶ 24 and 43.)

DISCUSSION

We adopt as our own the Examiner’s findings, analysis, and conclusions as set forth in the Final Action (Final Act. 2–5), Advisory

Action dated April 9, 2015, and Answer (Ans. 2–4). We discern no error in the rejections of the claims.

Rejection No. 1

Issue

Whether a preponderance of evidence of record supports the Examiner’s rejection of claims 11 and 20 under 35 U.S.C. § 101.

Analysis

The Examiner finds that claims 11 and 20⁶ are directed to the abstract idea of a mathematical relationship or formula, and the additional elements in the claims (other than the abstract idea per se) amount to no more than mere instructions to implement the idea on a computer. (Final Act. 2.) Appellants argue that claims 11 and 20 are directed to a computer readable medium, and that the activities recited in the claims “do not attempt to claim mathematical relationships, but rather control various functions.” (Appeal Br. 7.) Moreover, Appellants argue that, even if claims 11 and 20 are each directed to an abstract idea, the various elements in the claims amount to significantly more than the abstract idea because they “recite improvements in other technology or technical field (*i.e.*, improvements to performance activity/health monitoring systems).” (*Id.* at 8; *see also* Reply Br. 5.)

In analyzing patent eligibility questions under 35 U.S.C. § 101, the Supreme Court instructs us to “first determine whether the claims at issue are directed to a patent-ineligible concept.” *Alice Corp. Pty Ltd. v. CLS*

⁶ Claim 20 is similar to claim 11 and refers to the activity visualization device “according to claim 12” rather than claim 1. (Appeal Br. 26.) Claim 12 is similar to claim 1, and Appellants contest the obviousness conclusion of claim 12 on the same grounds as advanced in connection with claim 1. (*Id.* at 16.)

Bank Int'l, 134 S. Ct. 2347, 2355 (2014). If this threshold is met, we move to a second step of the inquiry and “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1297 (2012)).

Step 1

We agree with the Examiner that claims 11 and 20 are directed to a patent-ineligible concept; namely, an abstract idea. Abstract ideas include data analysis and algorithms. *See, e.g., Alice* 134 S. Ct. at 2355; *Bilski v. Kappos*, 561 U.S. 593, 611 (2010); *Parker v. Flook*, 437 U.S. 584, 594–95 (1978); and *Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972). Our reviewing court has also made clear that abstract ideas include collecting information and analyzing that information “by steps people go through in their minds, or by mathematical algorithms.” *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016) (internal citation omitted). Moreover, taking some action in response to the collected and analyzed information, without more, is also “abstract as an ancillary part of such collection and analysis.” *Id.* (claims directed to collecting and analyzing information to detect misuse of protected health information and “notifying a user when misuse is detected.”) Put concisely, “[w]ithout additional limitations, a process that employs mathematical algorithms to manipulate existing information to generate additional information is not

patent eligible.” *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014).⁷

Here, one or more of the claimed tasks⁸ recited in both claim 11 and claim 20 is directed to collecting and analyzing data or taking action in response to the collection and analysis of data (e.g., “carrying out computational operations” and “calculating”). *See FairWarning*, 839 F.3d at 1093–94. Accordingly, claims 11 and 20 are directed to an abstract idea.

Step 2

In considering the second step of the *Alice* inquiry, we agree with the Examiner that neither claim 11 nor claim 20 adds “significantly more” than the abstract idea. (Adv. Act. 2; Ans. 2–3.) Moreover, we find that, rather than improving the existing technology of health monitoring systems, the claims merely recite generic computer elements and restate their functions (e.g., “carrying out computational operations,” “calculating”). That does not satisfy the requirements of *Alice* step two. *See Intellectual Ventures*, 850 F.3d at 1341 (“That is to say, [the claims] merely describe the functions of the abstract idea itself, without particularity. This is simply not enough under step two.”). Accordingly, we affirm the rejection of claims 11 and 20 under 35 U.S.C. § 101.

Conclusion

A preponderance of evidence of record supports the Examiner’s rejection of claims 11 and 20 under 35 U.S.C. § 101.

⁷ *See also Intellectual Ventures v. Capital One*, 850 F.3d 1332, 1340 (Fed. Cir. 2017), discussing cases in which claims reciting data manipulation steps were held to be patent ineligible as abstract ideas.

⁸ Claims 11 and 20 recite “at least one task selected from the group consisting of.” (Appeal Br. 22–23 and 26.)

Rejection No. 2

Issue

Whether a preponderance of evidence of record supports the Examiner's rejection under 35 U.S.C. § 103(a).

Analysis

Claim 1

The Examiner concludes that

[i]t would have been obvious to modify [LeBoeuf] with Mault to utilize the device in a form that is easily worn by the user so that monitoring can be done continuously. It is noted that the [combined] teachings of LeBoeuf and Mault would enable two separate elements, in which the display is worn on the wrist in the form of a watch, and at least some sensors being worn within the ear.

(Final Act. 3.)

We agree. “[W]hen a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.” *KSR Int’l Co. v. Teleflex*, 550 U.S. 398, 417 (2007) (citation omitted).

Appellants argue that the asserted disclosure of a “visualization display” by LeBoeuf is a graphical user interface “which is not included in the earpiece module 100 or the sensor module 201.” (Appeal Br. 12.) Thus, according to Appellants, there is no teaching by LeBoeuf that this visualization display is included in the “activity visualization device” of claim 1 “in which the other elements of claim 1 are included.” (*Id.* at 13.)

We are not persuaded. LeBoeuf teaches that the data of interest can be “displayed on the portable telecommunication device” such as a “cell

phone, media player, PDA, laptop, or other device.” (LeBoeuf ¶ 84.) While the display device of LeBoeuf may be physically separate from the earpiece or sensor, it is still part of the system at least because of the wireless communication between the earpiece or sensor and the display device. (FF 1.) Moreover, the Examiner relies on Mault (not LeBoeuf) for teaching a device in the form of a wrist-watch that incorporates the display within a single device housing. (Final Act. 3; FF 3–4.)

Appellants argue that “the charts, personal database accessed through an interactive user interface, and algorithms for processing, diagnosing, and assessing disclosed by *LeBoeuf et al.* cannot reasonably be interpreted to teach” the limitations of claim 1, beginning with the phrase “a *visualization display* for presenting” to the end of the claim. (Appeal Br. 13–14.) We are not persuaded. Again, the limitations of the claims, including the portion argued by Appellants, are satisfied by the combination of LeBoeuf and Mault. *See In re Keller*, 642 F.2d 413, 425–26 (CCPA 1981) (citing cases) (the test for obviousness is “what the combined teachings of the references would have suggested to those of ordinary skill in the art” and “one cannot show non-obviousness by attacking references individually”).

Appellants argue further that Mault does not teach or suggest displaying “at least one overlaid segment that represents at least one personal recommendation” as recited in claim 1. (Appeal Br. 14–16.) In particular, Appellants argue that “the overlaid segment represents the personal recommendation, not feedback from activity levels or suggesting activities, as asserted by the Examiner.” (*Id.* at 14.) Furthermore, according to Appellants, the overlaid segments “are **overlaid** with the **displayed** actual occurrences.” (*Id.*; *see also* Reply Br. 7–8.)

We are not persuaded. The “feedback” taught by Mault includes a “display indication [] that walking, taking the stairs, exercising, or getting up from a computer workstation is advisable” and that the monitor “may also be used to suggest snacks.” (Mault ¶ 43.) Mault thus teaches and suggests a personal recommendation as claimed, and as discussed below, it is in the form of an overlaid segment.

Appellants argue that the term overlay means “to lay or place something over or upon (something else).”⁹ (Appeal Br. 15.) Similarly, the Examiner states that “the definition of overlay is to lay over or upon.” (Ans. 3.) The dispute is thus whether claim 1 recites or claims that the overlaid segments are overlaid with the displayed actual occurrences as argued by Appellants. (Appeal Br. 14–16.) The Examiner’s position is that “the claims do not recite such a feature” and that “any personal recommendation that is displayed as data, is ‘overlaid’ over an otherwise ‘blank segment.’” (Ans. 3.)

We find that the Examiner has the better position. Even the definition of “overlay” proffered by Appellants supports the Examiner’s interpretation that a personal recommendation displayed over an otherwise blank segment of Mault satisfies the limitation of “at least one overlaid segment that represents at least one personal recommendation.” (*See* FF 3 and 4.) Moreover, claim 1 does not recite or otherwise claim that the overlaid segments are overlaid with the displayed actual occurrences. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982) (rejecting arguments “not based on limitations appearing in the claims”).

⁹ Appellants cite Collins English Dictionary – Complete & Unabridged 10th Edition (2012) (from Dictionary.com). (Appeal Br. 15.)

Accordingly, for the reasons of record and as set forth above, we affirm the rejection of claim 1.

Claim 12

Appellants argue that claim 12 is patentable “at least for substantially the same reasons discussed above with reference to claim 1.” (Appeal Br. 16.) Accordingly, for the reasons set forth above in connection with claim 1, we affirm the rejection of claim 12.

Additional Claims

Appellants argue that “claims 2–6, 8–11 and 13–20 are patentable over the applied art at least because they depend from claims 1 and 12 . . . and further in view of their additional subject matter.”¹⁰ (Appeal Br. 16.) Accordingly, for the reasons set forth above, and because Appellants provide no separate or substantive arguments, we affirm the rejections of claims 2, 5, 6, 8–11, 13, and 16–20. *See* 37 C.F.R. § 41.37(c)(1)(iv); *see also In re Lovin*, 652 F.3d 1349, 1357 (Fed. Cir. 2011).

Rejection No. 3

Appellants argue that claims 3, 4, 14, and 15 are patentable “at least because they depend from claims 1 and 12 . . . and further in view of their additional subject matter. Applicants’ silence on certain aspects of the rejections, including the proposed combination of references, is by no means a concession as to their propriety.”¹¹ (Appeal Br. 17.) Accordingly, for the

¹⁰ Because claims 3, 4, 14, and 15 are subject to Rejection No. 3 rather than Rejection No. 2, we treat Appellants’ inclusion of those claims in connection with Rejection No. 2 as an inadvertent error.

¹¹ Arguments not presented for review on appeal are waived. MPEP § 1205.02.

reasons set forth above, and because Appellants provide no separate or substantive arguments, we affirm the rejections of claims 3, 4, 14, and 15. *See* 37 C.F.R. § 41.37(c)(1)(iv); *see also In re Lovin*, 652 F.3d at 1357.

Conclusions of Law

Rejection No. 2: A preponderance of evidence of record supports the Examiner's rejection of claims 1 and 12 under 35 U.S.C. § 103(a). Claims 2, 5, 6, and 8–11 were not argued separately and fall with claim 1, and claims 13 and 16–20 were not argued separately and fall with claim 12.

Rejection No. 3: A preponderance of evidence of record supports the Examiner's rejection of claims 3, 4, 14, and 15 under 35 U.S.C. § 103(a).

SUMMARY

We affirm the rejections of all claims on appeal.

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED